

## **ABSTRACT**

There is provided a harmonic structure acoustic signal detection device not depending on the level fluctuation of the input signal, having an excellent real time property and noise resistance.

- 5 The device includes: an FFT unit (200) which performs FFT on an input signal and calculates a power spectrum component for each frame; a harmonic structure extraction unit (201) which leaves only a harmonic structure from the power spectrum component; a voiced feature evaluation unit (210) which evaluates correlation between
- 10 the frames of harmonic structures extracted by the harmonic structure extraction unit (201), thereby evaluates whether or not the segment is a vowel segment, and extracts the voiced segment; and a speech segment determination unit (205) which determines a speech segment according to the continuity and durability of the
- 15 output of the voiced feature evaluation unit (210).